CLAIMS

What is claimed is:

1. A method for providing location-based event service comprising the steps of:

a) obtaining information indicating a current location of at least one mobile user, the at least one mobile user including a selected mobile user;

b) determining if at least one condition relating to a location of at least one mobile user is satisfied based on the indicated current location of the at least one mobile user;

c) performing at least one event, if at least one condition is satisfied; and

d) determining a time interval to wait before repeating steps a) - c).

2. The method of claim 1, wherein the step of determining a time interval to wait comprises the steps of:

selecting as the selected mobile user a mobile user that is least likely to cause a condition to be satisfied; and

determining the time interval to wait based on the selected mobile user.

3. The method of claim 2, wherein the step of determining a time interval to wait based on the selected mobile user comprises the steps of:

estimating a time at which the selected mobile user is likely to satisfy a condition based on at least one of: a distance from a current location of the selected mobile user to a region relevant to the condition, a velocity of the selected mobile user; and

determining the time interval to wait based on the estimated time at which the selected mobile user is likely to satisfy a condition and a time tolerance.

4. The method of claim 3, wherein the obtaining step comprises the steps of:

searching a cache operable to store information indicating locations of mobile users for information indicating a location of the at least one mobile user;

using the information indicating the location of the at least one mobile user as the information indicating the current location of the at least one mobile user, if the information indicating the location of the at least one mobile user is found in the cache; and

querying at least one mobile positioning server to obtain the information indicating the current location of the at least one mobile user, if the information indicating the location of the at least one mobile user is not found in the cache.

5. The method of claim 4, wherein the at least one event comprises transmitting a message.

6. The method of claim 5, wherein the message is transmitted to a mobile user.

7. The method of claim 5, wherein the message is transmitted to a non-mobile user.

8. The method of claim 4, wherein the at least one condition relates to a location of one mobile user.

9. The method of claim 4, wherein the at least one condition relates to locations of a plurality of mobile users.

10. The method of claim 4, wherein the at least one condition relates to a location of a mobile user and to a time.

11. A system for providing location-based event service comprising:

a processor operable to execute computer program instructions; and

a memory operable to store computer program instructions executable by the processor, for performing the steps of:

a) obtaining information indicating a current location of at least one mobile user, the at least one mobile user including a selected mobile user;

b) determining if at least one condition relating to a location of at least one mobile user is satisfied based on the indicated current location of the at least one mobile user;

c) performing at least one event, if at least one condition is satisfied; and

d) determining a time interval to wait before repeating steps a) - c).

12. The system of claim 11, wherein the step of determining a time interval to wait comprises the steps of:

selecting as the selected mobile user a mobile user that is least likely to cause a condition to be satisfied; and

determining the time interval to wait based on the selected mobile user.

13. The system of claim 12, wherein the step of determining a time interval to wait based on the selected mobile user comprises the steps of:

estimating a time at which the selected mobile user is likely to satisfy a condition based on at least one of: a distance from a current location of the selected mobile user to a region relevant to the condition, a velocity of the selected mobile user; and

determining the time interval to wait based on the estimated time at which the selected mobile user is likely to satisfy a condition and a time tolerance.

14. The system of claim 13, wherein the obtaining step comprises the steps of:

searching a cache operable to store information indicating locations of mobile users for information indicating a location of the at least one mobile user;

using the information indicating the location of the at least one mobile user as the information indicating the current location of the at least one mobile user, if the information indicating the location of the at least one mobile user is found in the cache; and

querying at least one mobile positioning server to obtain the information indicating the current location of the at least one mobile user, if the information indicating the location of the at least one mobile user is not found in the cache.

15. The system of claim 14, wherein the at least one event comprises transmitting a message.

16. The system of claim 15, wherein the message is transmitted to a mobile user.

17. The system of claim 15, wherein the message is transmitted to a non-mobile user.

18. The system of claim 14, wherein the at least one condition relates to a location of one mobile user.

19. The system of claim 14, wherein the at least one condition relates to locations of a plurality of mobile users.

20. The method of claim 14, wherein the at least one condition relates to a location of a mobile user and to a time.

21. A computer program product for providing location-based event service comprising:

a computer readable medium;

computer program instructions, recorded on the computer readable medium, executable by a processor, for performing the steps of

a) obtaining information indicating a current location of at least one mobile user, the at least one mobile user including a selected mobile user;

b) determining if at least one condition relating to a location of at least one mobile user is satisfied based on the indicated current location of the at least one mobile user;

c) performing at least one event, if at least one condition is satisfied; and

d) determining a time interval to wait before repeating steps a) - c).

22. The computer program product of claim 21, wherein the step of determining a time interval to wait comprises the steps of:

selecting as the selected mobile user a mobile user that is least likely to cause a condition to be satisfied; and

determining the time interval to wait based on the selected mobile user.

23. The computer program product of claim 22, wherein the step of determining a time interval to wait based on the selected mobile user comprises the steps of:

estimating a time at which the selected mobile user is likely to satisfy a condition based on at least one of: a distance from a current location of the selected mobile user to a region relevant to the condition, a velocity of the selected mobile user; and

determining the time interval to wait based on the estimated time at which the selected mobile user is likely to satisfy a condition and a time tolerance.

24. The computer program product of claim 23, wherein the obtaining step comprises the steps of:

searching a cache operable to store information indicating locations of mobile users for information indicating a location of the at least one mobile user;

using the information indicating the location of the at least one mobile user as the information indicating the current location of the at least one mobile user, if the information indicating the location of the at least one mobile user is found in the cache; and

querying at least one mobile positioning server to obtain the information indicating the current location of the at least one mobile user, if the information indicating the location of the at least one mobile user is not found in the cache.

25. The computer program product of claim 24, wherein the at least one event comprises transmitting a message.

26. The computer program product of claim 25, wherein the message is transmitted to a mobile user.

27. The computer program product of claim 25, wherein the message is transmitted to a non-mobile user.

28. The computer program product of claim 24, wherein the at least one condition relates to a location of one mobile user.

29. The computer program product of claim 24, wherein the at least one condition relates to locations of a plurality of mobile users.

30. The method of claim 24, wherein the at least one condition relates to a location of a mobile user and to a time.